IX 2000 L, IX 2000 H
Colour Camera

Installation&
Operation Manual

Vicon Industries Inc. Does not warrant that the functions contained in this equipment will meet your requirments or that the operation will be entirely error free or perform precisely as discribed in the documentation. This system has not been designed to be used in life critical situations and must not be used for this purpose.

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VICON

Dear Customer!

By selecting this VICON product you have chosen a professional device which guarantees highest possible quality and reliability. We like to thank you very much for your confidence in our products and kindly ask you to read the following instructions carefully before commissioning the product in order to be able to take full advantage of all quality features regarding this product line.

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General Information

Safety Precautions

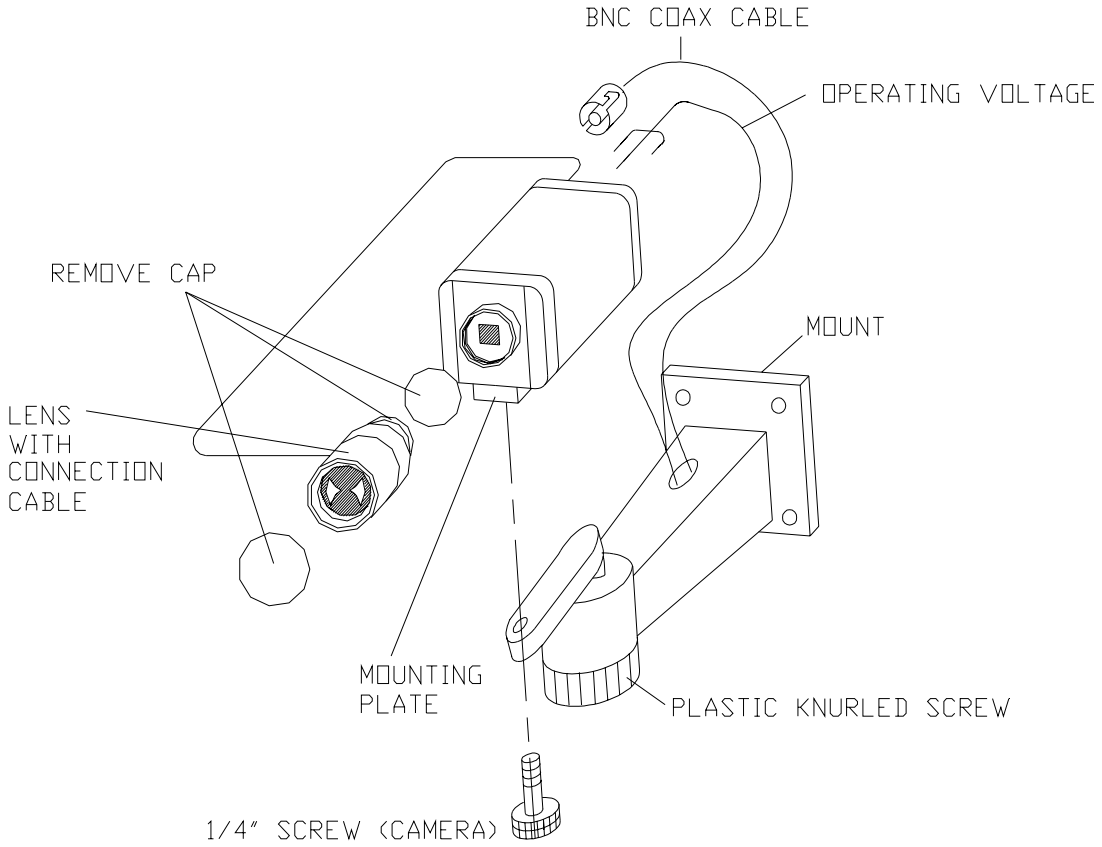
- Read these instructions carefully before commissioning the camera in order to avoid damages caused by improper installation or use.
- Installation may only be carried out by authorised personnel according to the local safety regulations.
- Operate the camera with the designated voltage only.
- Follow the safety instructions attached to the camera.
- Never use the camera for other purposes than designated.
- Repairs and adjustments at the camera may only be carried out by authorised personnel.
- In case of ourdoor use you have to install the camera in a suitable weather protection case incl. heating element.
- If any liquid or solid matter should get into the housing, disconnect the camera from power supply and have it checked by your authorised dealer before re-using (danger of electronic shock!).
- Do not disassemble the camera. To avoid electric shocks, never remove screws or covers. There are no user-serviceable parts inside it. All maintenance may only be carried out by authorised personnel according to the local safety regulations. Install the camera by a least height of 2.30 m.

Composition:

1. Auto Iris Lens Plug
2. Remote Plug
3. L-Wrench
4. C-Mount Adapter
5. Instruction Manual

Mounting the Camera

Mounting the Camera to a Wall Mount



Commissioning the Camera

Tips for Camera Location

1.0 To avoid internal overheating:
- never expose the camera to direct sunlight without additional camera housing
- keep sufficient distance to direct heat sources.

2.0 Never install the camera at humid, oily or dusty locations without using an additional housing. (without additional housing the camera is not suitable for outdoor use!)

3.0 The camera should be installed out of reach (min. height: 2.30 m)

4.0 Do not aim the camera towards indoor lighting, the windows, the sunlight or the sky (to get good pictures, camera and light should be aimed towards the object)

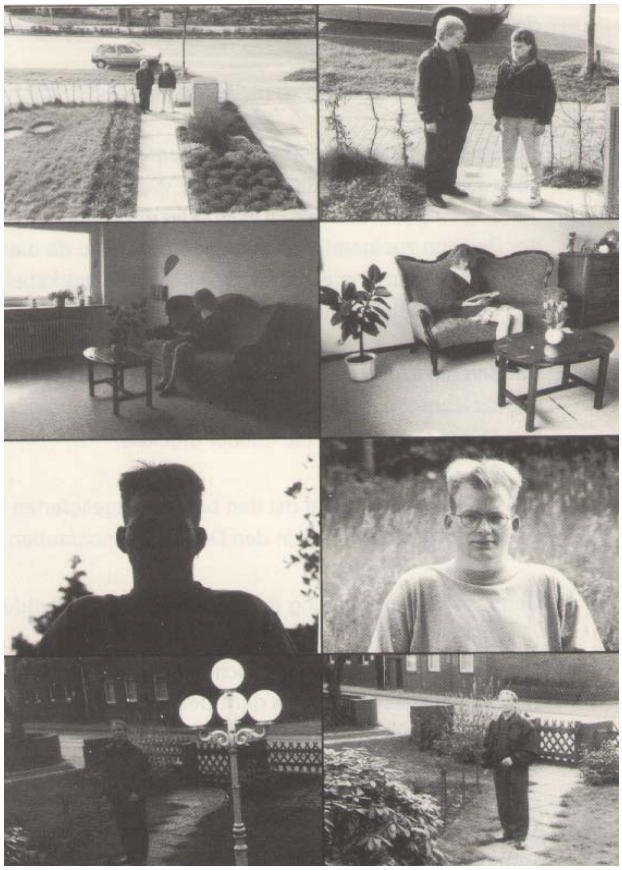
wrong **right**

5.0 Reduce the picture detail to the essential parts of the picture and place the camera as close as possible to the object (a smaller picture detail guarantees sharper details).

6.0 Do not aim the camera towards a window but instead towards the room.

7.0 Outdoors the camera should be placed as high as possible so that the horizon does not appear in the picture.

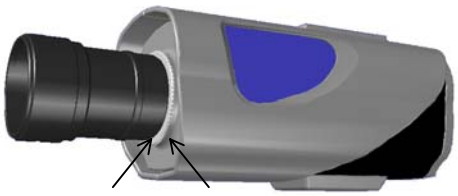
8.0 Avoid peak light as background (also caused by reflections, e.g. window panes).



Adjustment of Back Focus

This adjustment should only be carried out, if the lens cannot be focused properly using the lens focus ring. For such a case proceed as follows:

1 Loosen the Allan head screw with the attached Allan head key. For large distances, turn the focus ring of the lens almost (0.5 cm) to the "endless" limit position. If you need to focus an object near the camera, turn the focus ring of the lens to a position 1cm before the "near" limit position.


Locking screws

2 Use the back focus adjustment screw to adjust the distance between lens and CCD chip until the picture is in focus. Then fix the Allan head screw using the Allan head key.

3 Finally, focus the picture using the lens focus ring.

Adjustment of ES / DC Lenses

To adjust a lens with automatic iris (DC driven or video driven) to the camera, please proceed as follows:

1. Turn the level potentiometer (position: ES lenses at the lens itself, DC lenses: at the camera) to the max. position H (turn right). The monitor picture then appears to be too bright.
2. Slowly turn the level potentiometer back until the monitor picture appears to be perfect and is not too bright anymore. Then turn the potentiometer back to the right (in direction "H") just a little bit.
3. Check the lens performance by using the camera under different and/or changing light conditions.

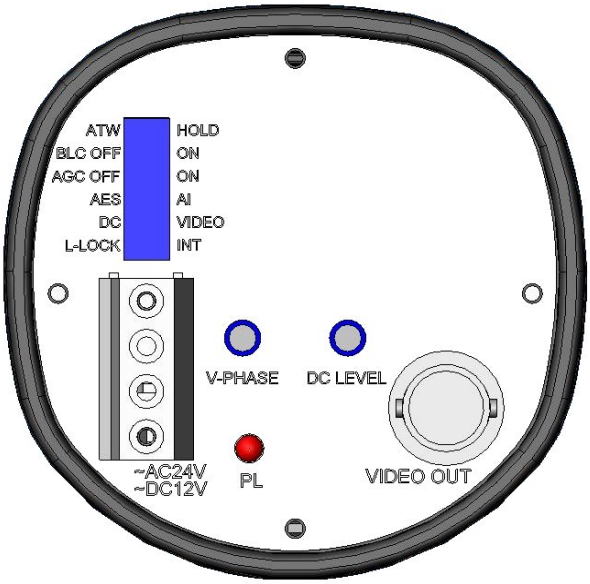
Focusing the Camera Lens

After you have selected the correct picture detail you have to adjust the lens focus. The focus adjustment needs to be done with the iris fully open, since the camera has the smallest depth of focus in this position. If the focus adjustment was not done with the iris completely open, the picture would be sharp during the day but slowly getting out of focus the more the light disappears. To fully open the lens, use a grey filter in front of the lens, provided you are using a lens with automatic iris. Adjust the focus while the iris is fully open using the lens focus ring. Make sure the most important picture details are in optimum focus (use a service monitor). If it is not possible to bring the picture into focus, please adjust the back focus of the camera as described above.

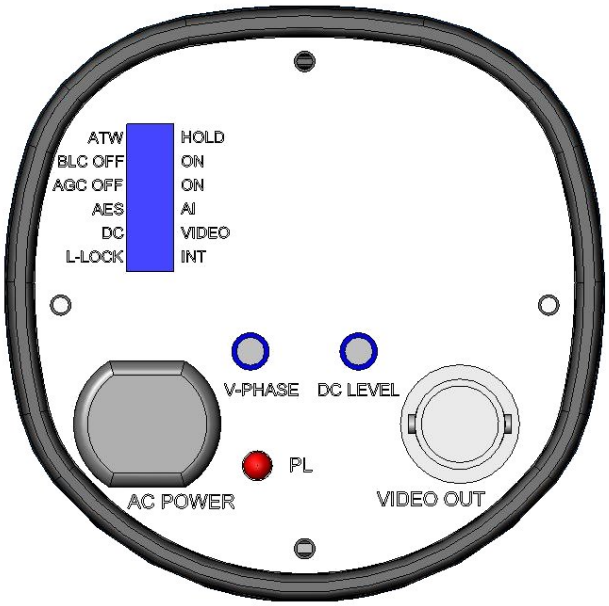
If you intend to use I.R. illumination at a later stage, you must use an I.R. pass filter together with the grey filter during focus adjustment to ensure that only I.R. light will get through to the camera chip and the focus adjustment is done according to this spectrum, only. Attention: I.R. light can only be used in combination with mono cameras, not colour cameras!

Circuit points and operation

Rear view
12V DC / 24V AC Model



Rear view
230 V AC Model



ATW // Hold:
ATW: Auto tracking white balance, adjust automatically
Hold: the momentary colour value will be stored

BLC :
Backlight on / off

AGC:
AGC on / off

AES // AI:
AES: autom. electr. Shutter
AI: autom. Iris

DC // Video:
Change-over between steered video and steered DC lenses, if the AI function is activated

L-Lock // Int:
Change-over between internal synchronisation and linelock. This function is not availably with 12 V DC!

V- Phase:
Linelock phase setting

DC Level:
Shutter setting with DC lenses

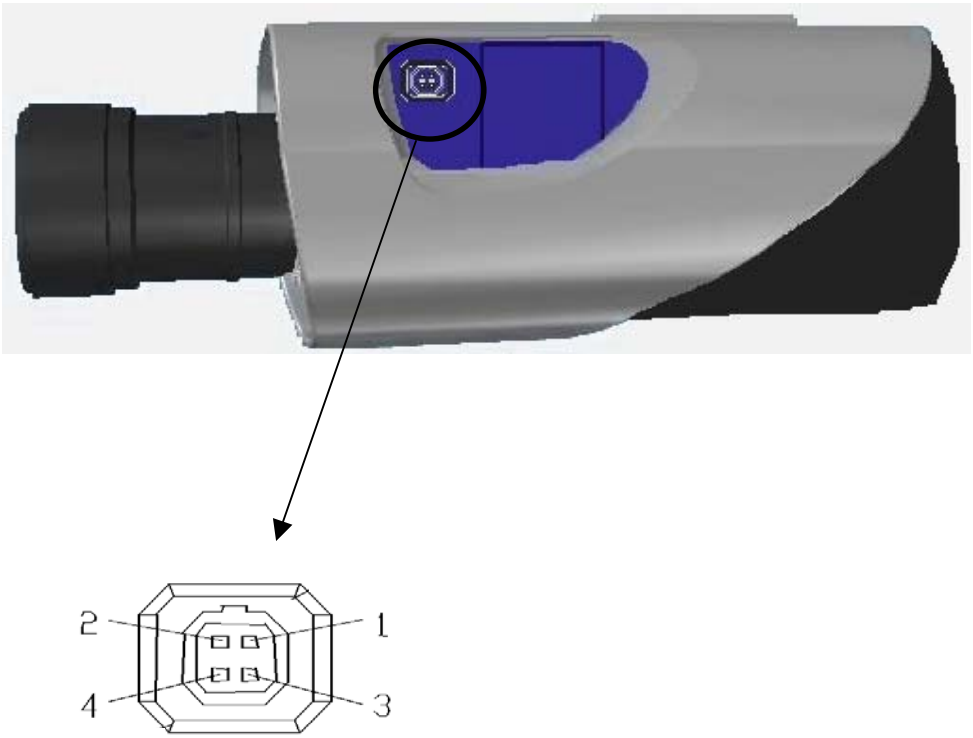
PL:
Power signal

AC24V / DC 12V:
Power connection, the polarity with 12V DC makes no difference

230V AC:
Mains voltage connecting lead

VIDEO OUT:
Videoexit to the monitor etc.

Lens mounting and connection



connection of AI lenses:

1. +8,5 V
2. not connected
3. control signal
4. GND

connection of DC lenses:

1. control –
2. control +
3. drive +
4. GND

Exhibit

Troubleshooting

Error	*Cause*
No picture	- No operating voltage (check red LED) - Coaxial connection interrupted (check video cable)
The picture is noisy	- Insufficient light - The lens drive of the used lens (DC / AI) is not properly adjusted to the camera (level too low)
The picture is too bright	- The lens drive of the used lens (DC / AI) is not properly adjusted to the camera (level too high) - Too much peak light; change camera location or activate backlight function of the camera
The picture is not sharp	- Focus not adjusted properly - Back focus not adjusted properly - When used outdoors: heater defective; front pane of camera housing gets steamy
The picture is distorted	- Different GND potentials between camera and monitor; use opto coupler (e.g. VPT from videotronic) - Bad connections
Ghost image	- Wrong 75 Ω termination - Shield of video cable interrupted
Synchronisation of cameras does not work properly	- No or bad linelock connection between camera (12 V/DC version) and power adapter - Mains plug twisted; turn the mains plug by 180° to change the linelock phase

Please contact your authorised dealer with an exact failure description if none of the above remedy measures fixes your problem.

Technical Specifications

Model	IXion 2000L	IXion 2000H
CCD SENSOR	1/3“ Interline Exview HAD CCD	
MAX. Pixel	470.000	
Effective Pixels	440.000 752(H) x 582(V)	
Reolution	480 TV-Lines	
Sensitivity	0,1 Lux / F1.2	
Enhancer (H- and V- Aperture)	yes	
Gamma Correction	0,45	
Auto Shutter	1/50 ~ 1/100.000 sek.	
Signal to Noise Ratio (SNR)	> 48 dB	
AGC	36 dB (max.)	
Synchronisation	Intern. (12V DC) Linelock (24V AC)	Linelock
Backlight compensation	On / Off	
White Balance	ATW / Hold	
Video output signal	Composite: $1V_{SS}$, 75 Ω	
Signal system	PAL, 625 lines	
Power source	12V DC 24V AC	100 ~ 240VAC
Power consumption	1,5W 2,5W	5W
Operating Temperature	-10°C ~ +50°C (**recommended** -5°C ~ +40°C)	
Lens Mount	C- / CS Mount	
Lenses	DC / Video / Manuell	
Connection	screws / BNC	Line cord / BNC
Dimensions (W x H x D)	65 x 65 x 125 mm	
Weight	~ 540 g	

Cleaning and Care

Before you start to clean the camera body, disconnect the unit from power supply. For reasons of electrical safety never clean the camera with water or other liquid matters and never put the camera under water. To clean use a soft dry cloth. Cleaning the camera inside is strictly forbidden and may only be done by your authorised dealer.

Since all camera functions are self adjusting and the camera does not contain any parts or components that are subject to wear we advise you not to open the camera (except for the flap for settings), unless the camera appears to be defective.

Make sure to include these instructions when handing the camera over to third parties.

Technical Support

Should you have any problems during installation you can reach our Technical Hotline under the following telephone number: +44 (0) 1489 - 566 300.

Shipping Instructions:

Use the following procedure when returning a unit to the factory:

1. Call or write Vicon for a Return Authorization (R.A.) at one of the locations listed below. Record the name of the Vicon employee who issued the R.A.

   Vicon Industries Inc.
   89 Arkay Drive
   Hauppage, NY 11788
   Phone: 631-952-CCTV (2288); Toll Free: 1-800-645-9116
   Fax: 631-951-CCTV (2288)

   For service or returns from countries in Europe, contact:

   Vicon Europe Ltd:
   Brunel Way
   Fareham, PO 15 5TX
   United Kingdom
   Phone: +44 (0) 1489 566 300
   Fax: +44 (0) 1489 566 322

2. Attach a sheet of paper to the unit with the following information:
   a. Name and address of th ecompany returning the unit
   b. Name of the Vicon employee who issued the R.A.
   c. R.A. number
   d. Brief description of the installation
   e. Complete description of the problem and circumstances under which it occurs
   f. Unit's original date of purchase, if still under warranty

3. Pack the unit carefully. Use the original shipping carton or ist equivalent for maximum protection.

4. Mark the R.A. number on the outside of the carton on the shipping label.

Vicon Industries Inc.

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